



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 104335**

**TO: Deborah Lambkin**

**Location:**

**Art Unit: 1626**

**September 23, 2003**

**Case Serial Number: 09/937632**

**From: P. Sheppard**

**Location: CM1-1E03**

**Phone: (703) 308-4499**

**sheppard@uspto.gov**

**Search Notes**

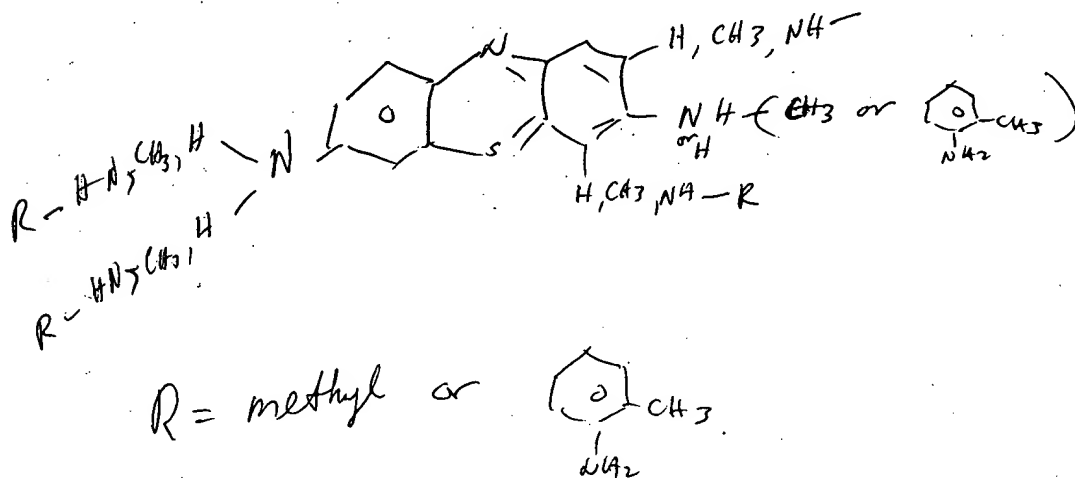
## Scientific and Technical Information Center

**If more than one search is submitted, please prioritize searches in order of need.**

Title of Invention: IN Vivo State Cryst.  
Inventors (please provide full names): Douglas Brinkett

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*



Paula, send separately copies of Claims 5, 6 & 7.

Thank des

STAFF USE ONLY

### Type of Search

**Vendors and cost where applicable**

Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone # _____	AA Sequence (#) _____	Dialog _____
Searcher Location _____	Structure (#) _____	Questel Other _____
Date Searcher Provided _____	Bibliographic _____	Dr. Link _____
Date Completed _____	Litigation _____	Acad's News _____
Searcher Prep & Review Time _____	Fulltext _____	Sequence Systems _____
Client's Prep Time _____	Patent Family _____	WWW Internet _____
Waiting Time _____	Other _____	Other Specialty _____

=&gt; fil hcaplus

FILE 'HCAPLUS' ENTERED AT 14:55:32 ON 23 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Sep 2003 VOL 139 ISS 13

FILE LAST UPDATED: 22 Sep 2003 (20030922/ED)

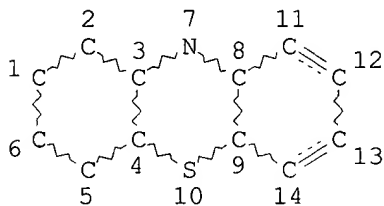
This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt;

=&gt;

=&gt; d stat que 113

L5 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

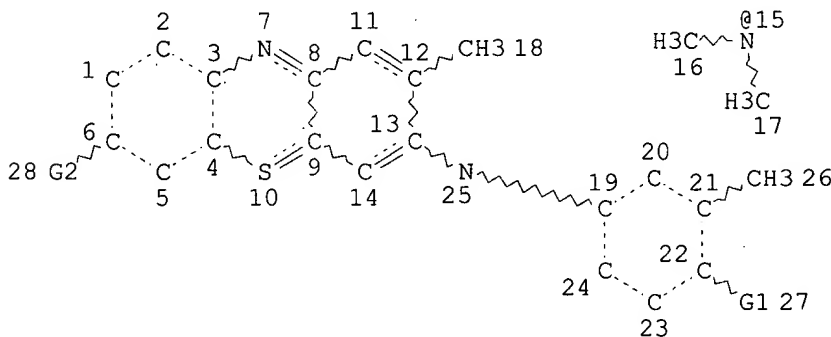
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L7 31130 SEA FILE=REGISTRY SSS FUL L5

L12 STR



VAR G1=NH2/CH3  
 VAR G2=NH2/15  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE  
 L13 2 SEA FILE=REGISTRY SUB=L7 SSS FUL L12

100.0% PROCESSED 3 ITERATIONS .2 ANSWERS  
 SEARCH TIME: 00.00.01

=>  
 => s l13  
 L14 1 L13

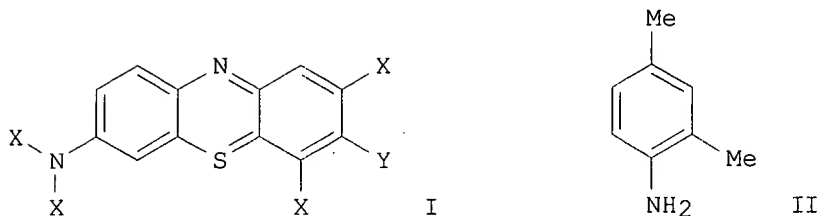
=>  
 =>

=> d ibib abs hitrn l14 1-  
 YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):n

=> d ibib abs hitrn l14 1

L14 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:564838 HCAPLUS  
 DOCUMENT NUMBER: 135:134287  
 TITLE: In vivo stain compounds and methods of use to identify  
 dysplastic tissue  
 INVENTOR(S): Burkett, Douglas D.  
 PATENT ASSIGNEE(S): Zila, Inc., USA  
 SOURCE: PCT Int. Appl., 51 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001054696	A1	20010802	WO 2000-US2602	20000131
W: AU, BR, CA, CN, CZ, HU, IL, IN, JP, KR, MX, NO, PL, SG, SK, TR, US, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1165087	A1	20020102	EP 2000-915730	20000131
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 2000009427	A	20020716	BR 2000-9427	20000131
JP 2003520816	T2	20030708	JP 2001-554680	20000131
NO 2001004720	A	20011127	NO 2001-4720	20010928
PRIORITY APPLN. INFO.:			WO 2000-US2602	W 20000131
OTHER SOURCE(S): MARPAT 135:134287				
GI				



AB Compds. having the structural formula I wherein X is hydrogen, Me, or Y; Y is -NH-R or hydrogen; and R is Me or formula II are useful as in vivo stains for the detection of dysplastic tissue.

IT 352005-62-0P 352005-65-3P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(In vivo stain compds. and methods of use to identify dysplastic tissue)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

=>

=> fil caold

FILE 'CAOLD' ENTERED AT 14:56:02 ON 23 SEP 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966  
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=>

=>

=> s l13

L15 0 L13

=>

=>

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:56:16 ON 23 SEP 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file

provided by InfoChem.

STRUCTURE FILE UPDATES: 22 SEP 2003 HIGHEST RN 591204-55-6  
 DICTIONARY FILE UPDATES: 22 SEP 2003 HIGHEST RN 591204-55-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

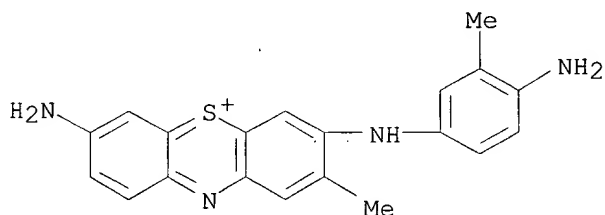
Experimental and calculated property data are now available. See HELP  
 PROPERTIES for more information. See STNote 27, Searching Properties  
 in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

=>

=> d ide can l13 tot

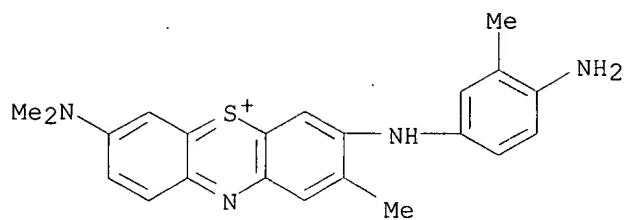
L13 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 352005-65-3 REGISTRY  
 CN Phenothiazin-5-ium, 7-amino-3-[(4-amino-3-methylphenyl)amino]-2-methyl-  
 (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C20 H19 N4 S  
 SR CA  
 LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:134287

L13 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 352005-62-0 REGISTRY  
 CN Phenothiazin-5-ium, 3-[(4-amino-3-methylphenyl)amino]-7-(dimethylamino)-2-  
 methyl- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C22 H23 N4 S  
 SR CA  
 LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:134287

=&gt; fil hcaplus

FILE 'HCAPLUS' ENTERED AT 14:59:22 ON 23 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Sep 2003 VOL 139 ISS 13

FILE LAST UPDATED: 22 Sep 2003 (20030922/ED)

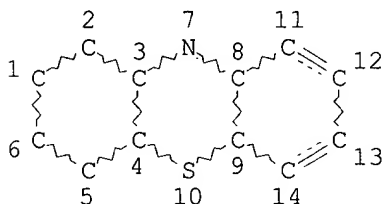
This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt;

=&gt;

=&gt; d stat que 125

L5 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

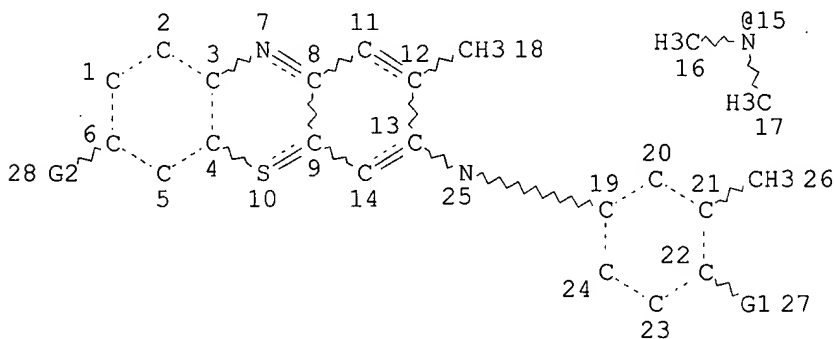
RING(S) ARE ISOLATED OR EMBEDDED.

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L7 31130 SEA FILE=REGISTRY SSS FUL L5

L12 STR

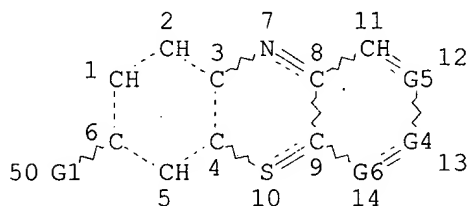




VAR G1=NH2/CH3  
 VAR G2=NH2/15  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE  
 L13 2 SEA FILE=REGISTRY SUB=L7 SSS FUL L12  
 L20 STR

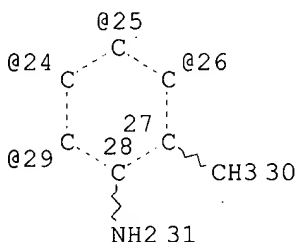


NH~G2  
 @15 16

G2~N~G2  
 17 @18 19

NH~CH3  
 @20 21

NH~G3  
 @22 23



C~NH~CH3  
 @32 33 34

C~NH~G3  
 @35 36 37

C~CH3  
 @38 39

C~NH  
 @40 41

C~CH3  
 @42 43

C~NH~CH3  
 @44 45 46

C~N~G3  
 @47 48 49

VAR G1=NH2/15/18  
 VAR G2=CH3/20/22  
 VAR G3=24/25/26/29  
 VAR G4=CH/32/35  
 VAR G5=CH/38/40  
 VAR G6=CH/42/44/47  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 50

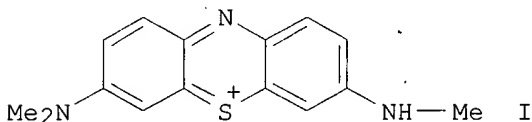
STEREO ATTRIBUTES: NONE  
 L21 60 SEA FILE=REGISTRY SUB=L7 SSS FUL L20  
 L22 SCR 2127  
 L23 12 SEA FILE=REGISTRY SUB=L21 SSS FUL L20 NOT L22  
 L24 10 SEA FILE=REGISTRY ABB=ON PLU=ON L23 NOT L13  
 L25 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L24

=>  
 =>

=&gt; d ibib abs hitrn 125 1-20

L25 ANSWER 1 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:226744 HCAPLUS  
 DOCUMENT NUMBER: 136:226765  
 TITLE: Phenothiazinium derivative having an antiparasitic and biological activity  
 INVENTOR(S): Galey, Laurent  
 PATENT ASSIGNEE(S): Fr.  
 SOURCE: Fr. Demande, 13 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2810549	A1	20011228	FR 2000-8249	20000627
PRIORITY APPLN. INFO.: GI			FR 2000-8249	20000627



Ref U

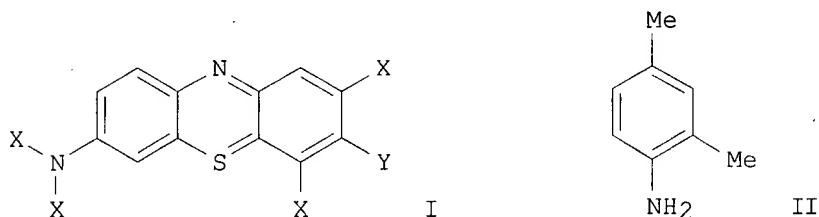
AB Pharmaceutical compn. with antiparasitic activity against Plasmodium, Babesia, Toxoplasma, Trypanosoma, Onchocerca, Filaria, Leishmania, Nematodes, Plathelminthes, and Nemathelminthes are disclosed comprising the structure of I (no data).

IT **29260-45-5**  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (phenothiazinium deriv. having antiparasitic and biol. activity)

L25 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:564838 HCAPLUS  
 DOCUMENT NUMBER: 135:134287  
 TITLE: In vivo stain compounds and methods of use to identify dysplastic tissue  
 INVENTOR(S): Burkett, Douglas D.  
 PATENT ASSIGNEE(S): Zila, Inc., USA  
 SOURCE: PCT Int. Appl., 51 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001054696	A1	20010802	WO 2000-US2602	20000131
W:	AU, BR, CA, CN, CZ, HU, IL, IN, JP, KR, MX, NO, PL, SG, SK, TR, US, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,			

PT, SE  
 EP 1165087 A1 20020102 EP 2000-915730 20000131  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 BR 2000009427 A 20020716 BR 2000-9427 20000131  
 JP 2003520816 T2 20030708 JP 2001-554680 20000131  
 NO 2001004720 A 20011127 NO 2001-4720 20010928  
 PRIORITY APPLN. INFO.: WO 2000-US2602 W 20000131  
 OTHER SOURCE(S): MARPAT 135:134287  
 GI



AB Compds. having the structural formula I wherein X is hydrogen, Me, or Y; Y is -NH-R or hydrogen; and R is Me or formula II are useful as in vivo stains for the detection of dysplastic tissue.

IT 47078-64-8P 352005-59-5DP, derivs. 352005-60-8P  
 352005-61-9P 352005-63-1P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(In vivo stain compds. and methods of use to identify dysplastic tissue)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:640092 HCAPLUS

DOCUMENT NUMBER: 131:334255

TITLE: Investigation on the iodination reaction of methylene blue by liquid chromatography-mass spectrometry with ionspray ionization

AUTHOR(S): Raffaelli, Andrea; Pucci, Sergio; Desideri, Ielizza; Bellina, Calogero R.; Bianchi, Romano; Salvadori, Piero

CORPORATE SOURCE: Centro di Studio del CNR per le Macromolecole Stereordinate ed Otticamente Attive, Dipartimento di Chimica e Chimica Industriale, Universita di Pisa, Pisa, 56126, Italy

SOURCE: Journal of Chromatography, A (1999), 854(1 + 2), 57-67  
 CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Radioactive iodine (<sup>131</sup>I and <sup>123</sup>I) labeled methylene blue is used for the early diagnosis of melanoma metastases. We studied the iodination reaction of methylene blue (using "cold" iodine) in order to characterize the iodination product(s) as far as no. and position of iodine atoms introduced on the arom. ring(s) is concerned. The reaction was carried out under the same exptl. conditions used for the radioactive one, that is in a large excess of methylene blue. The ion-spray HPLC-MS anal. of the reaction mixt. showed that the iodinated methylene blue was present only in a very small amt. and the main iodinated product was a demethylated one, coming out from the iodination of an impurity azure B. We also

studied the iodination reaction of azure B in order to better explain the reaction pathway. Com. azure B contains impurities of methylene blue and all the possible demethylated derivs. HPLC-MS anal. of the reaction mixt. allowed a complete characterization of the iodinated and bis-iodinated products.

IT 29260-45-5 30719-07-4 39093-22-6

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(investigation on the iodination reaction of methylene blue by liq. chromatog.-mass spectrometry with ion-spray ionization)

IT 29260-45-5DP, iodinated 30719-07-4DP, iodinated 39093-22-6DP, iodinated

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(investigation on the iodination reaction of methylene blue by liq. chromatog.-mass spectrometry with ion-spray ionization)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:702983 HCAPLUS

DOCUMENT NUMBER: 125:341110

TITLE: Electrochemical study of the reaction between progressively alkylated thiazine leuco dyes and Fe(III) on a glassy carbon electrode

AUTHOR(S): Ahmed, S.; Saha, S. K.

CORPORATE SOURCE: Dep. Chem., Univ. North Bengal, Darjeeling, 734430, India

SOURCE: Canadian Journal of Chemistry (1996), 74(10), 1896-1902

CODEN: CJCHAG; ISSN: 0008-4042

PUBLISHER: National Research Council of Canada

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An electrochem. study on five progressively alkylated thiazine dyes in the presence of Fe(III) ions is reported. The theory of the catalytic regeneration mechanism involving an electrode reaction followed by a coupled chem. reaction is applied to derive kinetic parameters of homogeneous reaction. The 2nd-order rate const. for the reaction of thiazine leuco dyes with Fe(III) ions increases from 0.25 .times. 104 to 1.6 .times. 104 dm3 mol-1 s-1 upon monomethylation and to vary from 0.7 .times. 104 for the di-Me deriv. to 1.4 .times. 104 dm3 mol-1 s-1 for the tetra-Me one. The electron-donating nature as well as the hydrophobic characteristics of the Me group influence the kinetics of the homogeneous reaction.

IT 29260-45-5P 30719-07-4P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(cyclic voltammetry in sulfuric acid: electrochem. study of reaction between progressively alkylated thiazine leuco dyes and Fe(III) on glassy carbon electrode)

L25 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:631422 HCAPLUS

DOCUMENT NUMBER: 125:329347

TITLE: Receptor inactivation by dye-neuropeptide conjugates: 1. The synthesis of Cys-containing dye-neuropeptide conjugates

AUTHOR(S): Feigenbaum, Jeffery J.; Choubal, Milind D.; Payza, Kemal; Kanofsky, Jeffrey R.; Crumrine, David S.

CORPORATE SOURCE: Department of Research and Development, American Inst. of Biotechnology, Elk Grove, IL, 60007, USA

SOURCE: Peptides (Tarrytown, New York) (1996), 17(6), 991-994  
 CODEN: PPTDD5; ISSN: 0196-9781  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB To attenuate specifically identified receptors through photolysis, a four-step synthesis of a useful tethered deriv. of Azure-B (Az) was developed. After characterization, this, deriv. was covalently attached to CFMRamide, CFMRF, and CLRFamide (i.e., three different neuropeptide analogs of the putative neurotransmitter FMRFamide). This resulted in the formation of three dye-neuropeptide conjugates: Az-CFMRamide, Az-CFMRF, and Az-CLRFamide.

IT **29260-45-5P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of Cys-contg. dye-neuropeptide conjugates)

L25 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:229160 HCAPLUS  
 DOCUMENT NUMBER: 124:328070  
 TITLE: Electrochemichromic solutions, processes for preparing and using the same, and devices manufactured with the same  
 INVENTOR(S): Varaprasad, Desaraju V.; Looman, Steven D.; Zhao, Mingtang; Habibi, Hamid R.; Lynam, Niall R.  
 PATENT ASSIGNEE(S): Donnelly Corp., USA  
 SOURCE: U.S., 32 pp., Cont.-in-part of U.S. 5, 239, 405.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5500760	A	19960319	US 1992-935784	19920827
US 5239405	A	19930824	US 1991-756342	19910906
EP 531143	A2	19930310	EP 1992-308022	19920904
EP 531143	A3	19931020		
R: DE, FR, GB, IE, IT				
JP 07216349	A2	19950815	JP 1992-238612	19920907
US 5424865	A	19950613	US 1993-61742	19930117
US 5611966	A	19970318	US 1995-458080	19950601
US 5985184	A	19991116	US 1997-956198	19971022
US 6143209	A	20001107	US 1999-325712	19990604
PRIORITY APPLN. INFO.:			US 1991-756342	A2 19910906
			US 1992-935784	A 19920827
			EP 1992-308022	W 19920904
			US 1993-61742	A3 19930117
			US 1995-458080	A3 19950601
			US 1997-819652	B1 19970317
			US 1997-956198	A1 19971022

OTHER SOURCE(S): MARPAT 124:328070

AB Electrochemichromic solns. capable of color change when a potential is applied comprise at least one anodic compd., said anodic compd. having been previously contacted with a redox agent such that said anodic compd. exists in a different valence state than prior to having been contacted with said redox agent, at least one cathodic compd., and a solvent wherein the redox potential of the anodic compd. in the different valence state is greater than the redox potential of the cathodic compd. while in contact with the solvent. Electrochemichromic devices (e.g., mirrors, glazings, partitions, filters, displays, and lenses) employing the solns. in a cell are also described.

IT 29260-45-5 30719-07-4

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(electrochemichromic solns. using prereduced anodic compds. and devices using them)

L25 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:229898 HCAPLUS  
DOCUMENT NUMBER: 120:229898  
TITLE: Electrochemichromic solutions, processes for preparing and using the same, and devices manufactured with the same  
INVENTOR(S): Varaprasad, Desaraju V.; Habibi, Hamid R.; Looman, Steven D.; Lynam, Niall R.; Zhao, Mingtang  
PATENT ASSIGNEE(S): Donnelly Corp., USA  
SOURCE: Eur. Pat. Appl., 43 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 531143	A2	19930310	EP 1992-308022	19920904
EP 531143	A3	19931020		
R: DE, FR, GB, IE, IT				
US 5239405	A	19930824	US 1991-756342	19910906
US 5500760	A	19960319	US 1992-935784	19920827
JP 07216349	A2	19950815	JP 1992-238612	19920907
US 5611966	A	19970318	US 1995-458080	19950601
US 5985184	A	19991116	US 1997-956198	19971022
US 6143209	A	20001107	US 1999-325712	19990604
PRIORITY APPLN. INFO.:			US 1991-756342	A 19910906
			US 1992-935784	A 19920827
			EP 1992-308022	W 19920904
			US 1993-61742	A3 19930117
			US 1995-458080	A3 19950601
			US 1997-819652	B1 19970317
			US 1997-956198	A1 19971022

OTHER SOURCE(S): MARPAT 120:229898

AB Electrochemichromic solns. are described which comprise .gtoreq.1 anodic compd. which has had its valence state changed by contact with a redox agent, .gtoreq.1 cathodic compd. and a solvent; the redox potential of the anodic compd. is greater than that of the cathodic compd. when in contact with the solvent. Devices (e.g., adjustable mirrors) employing the solns. in conjunction with a cell provided with electrodes are also described.

IT 29260-45-5 30719-07-4

RL: PRP (Properties)  
(electrochemichromic solns. contg.)

L25 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1990:15675 HCAPLUS  
DOCUMENT NUMBER: 112:15675  
TITLE: Polarographic determination of lead and tin in lead tin telluride (Pb1-xSnxTe) semiconductor alloys  
AUTHOR(S): Kopanskaya, L. S.; Kiriyak, L. G.; Smelov, V. A.; Russu, V. G.; Vataman, I. I.; Slobodenyuk, K. I.  
CORPORATE SOURCE: Inst. Khim., Kishinev, USSR  
SOURCE: Zavodskaya Laboratoriya (1989), 55(4), 10-13  
CODEN: ZVDLAU; ISSN: 0321-4265  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

AB Simultaneous detn. of Sn and Pb in Pb1-xSnxTe is based on formation of assoc. of Sn complexes of H<sub>2</sub>C<sub>2</sub>O<sub>4</sub> and protonated leuco base of Azure I on the surface of a Hg drop. At the optimal conditions for polarog. detn. which included 0.5M H<sub>2</sub>C<sub>2</sub>O<sub>4</sub> and 10-4M Azure I, potential peaks of Pb and Sn were EPb = -0.425 and ES<sub>n</sub> = -0.545 V (vs. SCE). Te did not interfere, and it can be detd. in the system from the peak ETe = -0.805 V. Also, Pb and Sn were isolated from the sample and detd. sep., which allowed confirmation of the accuracy of this method. Pb was selectively extd. as diethyldithiocarbamate at pH 10-11 (to assure full sepn. of Te(IV) and Sn(IV) with CHCl<sub>3</sub>). This was followed by polarog. of the ext. in the presence of 1M LiClO<sub>4</sub> in EtOH contg. 1M HCl. The latter is necessary to decomp. the In(III) dopant which if present would ext. along with Pb. In these conditions the Pb peak is at EPb = -0.42 V (with resp. to Hg electrode). Sn was sepd. from the sample by copptn. on Be hydroxide in the presence of EDTA, followed by detn. using H<sub>2</sub>C<sub>2</sub>O<sub>4</sub> and Azure I.

IT 29260-45-5D, ion assoc. with tin oxalato complexes

RL: PRP (Properties)  
(elec. potential of)

L25 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:486027 HCAPLUS

DOCUMENT NUMBER: 111:86027

TITLE: Electrochemical properties of macromolecular bound ruthenium(II) complexes coated electrodes

AUTHOR(S): Ramaraj, R.; Natarajan, P.

CORPORATE SOURCE: Dep. Inorg. Chem., Univ. Madras, Madras, 600 025, India

SOURCE: Indian Journal of Chemistry, Section A: Inorganic, Physical, Theoretical & Analytical (1989), 28A(3), 187-96

CODEN: IJCADU; ISSN: 0376-4710

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cyclic voltammetric behavior of electrodes coated with macromol. bound Ru complexes was investigated. Bis(bipyridine)dichlororuthenium(II) was condensed with poly(4-vinylpyridine) and its copolymers with methylolacrylamide. Macromol. Ru complexes contg. covalently bound thionine dye were prepd., and their electrochem. behavior was investigated. The no. of Ru complex centers bound to the macromol. chain was varied, and the redox behavior of the metal complex in the presence of the macromol. chain was studied.

IT 30719-07-4D, N-Methylthionine, derivs., reaction products with acrylamide-methylolacrylamide-vinylpyridine polymer, ruthenium bipyridine complexes

RL: PRP (Properties)  
(platinum electrode coated with, cyclic voltammetry of)

L25 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:551298 HCAPLUS

DOCUMENT NUMBER: 109:151298

TITLE: Donnan approach to equilibrium sorption: interactions of cationic dyes with acrylic fibers

AUTHOR(S): Alberghina, Gaetano; Chen, Shuillin; Fisichella, Salvatore; Iijima, Toshiro; McGregor, Ralph; Rohner, Rolf M.; Zollinger, Heinrich

CORPORATE SOURCE: Univ. Catania, Catania, Italy

SOURCE: Textile Research Journal (1988), 58(6), 345-54

CODEN: TRJOA9; ISSN: 0040-5175

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The sorption isotherms of 10 cationic dyes on a series of regular and porous acrylic fibers (e.g., Dralon X-100, Dunova, ATF 1017, RIH 1920, RIH 71600, and Dralon U-100) were detd. in detail and interpreted by means of

the Donnan theory, taking into account that the fibers used contain 2 types of ionizable groups, namely strongly acidic SO<sub>3</sub>H and OSO<sub>3</sub>H groups and weakly acidic CO<sub>2</sub>H groups. The relative magnitudes of the ionic distribution coeffs. for the dyes defined an "affinity series" which was essentially the same for all the fibers in spite of the known variations in fiber structure and porosity. This suggests that dye adsorption on internal surfaces or interfaces is not a major factor, and that the dye sorption is detd. primarily by the ion-exchange and acid-base characteristics of the polymer matrix, modified to some extent perhaps by the intrinsic water sorptions of the different polymer phases,. The distribution coeffs. correlate in an interesting manner with the mol. wts. and chem. structures of the dyes.

IT 29260-45-5

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(sorption of, by acrylic fibers, Donnan equil. in relation to)

L25 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:23242 HCAPLUS

DOCUMENT NUMBER: 108:23242

TITLE: Donnan approach to the equilibrium sorption interactions of cationic dyes with acrylic fibers

AUTHOR(S): Alberghina, Gaetano; Chen, Shuillin; Fisichella, Salvatore; Iijima, Toshiro; McGregor, Ralph; Rohner, Rolf M.; Zollinger, Heinrich

CORPORATE SOURCE: Univ. Catania, Catania, Italy

SOURCE: Book of Papers - International Conference & Exhibition, AATCC (1987) 216-19  
CODEN: BPJAEQ; ISSN: 0892-2713

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The equil. sorption of 10 cationic dyes by porous and regular acrylic fibers was interpreted by a simple Donnan approach, based on the assumption that there were 2 different types of acidic groups in the fibers. The ionic distribution coeffs. (KD) for the dyes and the fibers were calcd. These coeffs. provided an indirect measure of the affinity of the dyes for the fibers. The values of KD were discussed in relation to the structure of the dyes and fibers and in relation to the effects of salts, pH, and temp.

IT 29260-45-5

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(sorption of, by acrylic fibers, detn. of, by Donnan approach)

L25 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1984:475916 HCAPLUS

DOCUMENT NUMBER: 101:75916

TITLE: Electron-transfer coupling in microbial fuel cells.  
1. Comparison of redox-mediator reduction rates and respiratory rates of bacteria

AUTHOR(S): Roller, Sibel D.; Bennetto, H. Peter; Delaney, Gerard M.; Mason, Jeremy R.; Stirling, John L.; Thurston, Christopher F.

CORPORATE SOURCE: Biotech. Group, Queen Elizabeth Coll., London, W8 7AH, UK

SOURCE: Journal of Chemical Technology and Biotechnology, Biotechnology (1984), 34(1), 3-12  
CODEN: JTBBDD7; ISSN: 0264-3421

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Redox mediators promote electron transfer in microbial fuel cells. The redn. of a range of redox mediators by bacteria was studied to identify effective mediator-organism combinations. Rates of redn. of mediator dyes by bacteria were measured spectrophotometrically at 30.degree. under anaerobic conditions for standardized concns. of organism, substrate, and



dye. The kinetics of dye redn. showed 2 general patterns: a simple, exponential curve or a complex curve with an initial linear rate followed by a faster exponential rate of redn. Dye-redn. rates were greater than rates of O consumption for several combinations of organism and redox dye. The use of these dyes as electron-transfer mediators in microbial fuel cells is discussed.

IT 80297-51-4

RL: USES (Uses)

(redox mediator, in microbial fuel cells, properties of)

L25 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1984:475915 HCAPLUS

DOCUMENT NUMBER: 101:75915

TITLE: Electron-transfer coupling in microbial fuel cells.

2. Performance of fuel cells containing selected microorganism-mediator-substrate combinations

AUTHOR(S): Delaney, Gerard M.; Bennetto, H. Peter; Mason, Jeremy R.; Roller, Sibel D.; Stirling, John L.; Thurston, Christopher F.

CORPORATE SOURCE: Biotech. Group, Queen Elizabeth Coll., London, W8 7AH, UK

SOURCE: Journal of Chemical Technology and Biotechnology, Biotechnology (1984), 34(1), 13-27

CODEN: JTBBDD7; ISSN: 0264-3421

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Various phenoxazine, phenothiazine, phenazine, indophenol, and bipyridilium derivs. were tested for their effectiveness as redox mediators in microbial fuel cells contg. *Alcaligenes eutrophus*, *Bacillus subtilis*, *Escherichia coli*, or *Proteus vulgaris* as the active biol. agent, and glucose [50-99-7] or succinate as the oxidizable substrate. A ferricyanide-Pt cathode was used. The open-circuit cell emf.'s increased with increasing neg. redox potential at pH 7 of the redox compds. Several of the redox agents worked well as mediators, maintaining steady currents over several hours, and thionine [581-64-6] was esp. effective in maintaining relatively high cell voltages when current was drawn from the cell. *P. vulgaris*, With thionine as mediator and glucose as substrate, showed the best performance in a fuel cell. This system was examd. in some detail under various conditions of external load to establish the effects of organism concn., mediator concn., and substrate addn.

IT 80297-51-4

RL: USES (Uses)

(redox mediator, performance of microbial fuel cells contg.)

L25 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1982:173548 HCAPLUS

DOCUMENT NUMBER: 96:173548

TITLE: Formation and extraction of tungstophosphate-thiazine dye compounds. Spectrophotometric determination of phosphate

AUTHOR(S): Sanchez-Pedreno, C.; Hernandez Cordoba, M.; Ortuno, J. A.; Tudela, G. M.

CORPORATE SOURCE: Spain

SOURCE: Anales de la Universidad de Murcia, Ciencias (1981), 37(1-4), 91-106

CODEN: AUMCB5; ISSN: 0463-9847

DOCUMENT TYPE: Journal

LANGUAGE: Spanish

AB Although phosphate anions do not form extractable compds. with basic dyes, tungstophosphate assoc. with several dyes, and the assoc. can be extd. with org. solvents. The thiazine dye Azure B was used to det. 0.2-10 ppm orthophosphate by forming the ion-assoc. with tungstophosphate, extg. into C6H6-cyclohexanone (1:1 by vol.), and measuring the absorbance at 645 nm.

The effects of all reagent concns., of H<sub>2</sub>SO<sub>4</sub> concn., and of possible interfering species were examd. The calibration plot is linear for PO<sub>4</sub><sup>3-</sup> detn. in 0.2N H<sub>2</sub>SO<sub>4</sub>, but curved in 0.02N H<sub>2</sub>SO<sub>4</sub>.

IT **29260-45-5D**, tungstophosphate ion assoc.  
 RL: PRP (Properties)  
 (spectrum of)

L25 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1982:8116 HCAPLUS  
 DOCUMENT NUMBER: 96:8116  
 TITLE: New thiazine dyes for photogalvanic cells  
 AUTHOR(S): Albery, W. John; Bartlett, Philip N.; Davies, John P.;  
 Foulds, Andrew W.; Hillman, A. Robert; Bachiller,  
 Fernando Souto  
 CORPORATE SOURCE: Dep. Chem., Imp. Coll. Sci. Technol., London, SW7 2AY,  
 UK  
 SOURCE: Faraday Discussions of the Chemical Society (1981),  
 70, 341-57  
 CODEN: FDCSB7; ISSN: 0301-7249  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Six new modified thiazine dyes were prepd. and studied in relation to the photochem. and kinetic requirements of a photogalvanic cell for solar energy conversion, since the efficiency of the Fe thionine photogalvanic cell for solar energy conversion is severely limited by the insoly. of thionine. A linear free energy relation exists between the rate const. for the thermal back reaction and the std. electrode potential of the thiazine dye. The implications of this relation are explored, together with the effect of pH, Fe(III) concn., and soly. on the efficiency of the cell. For efficient energy conversion it is necessary to have a selective electrode; the thionine-coated electrode is suitable for the cell.

IT **80297-51-4D**, sulfonated  
 RL: USES (Uses)  
 (electrolytes contg. iron and, for photogalvanic cells)

L25 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1980:597095 HCAPLUS  
 DOCUMENT NUMBER: 93:197095  
 TITLE: Conditions for quantitative formation of molybdosilicic acid-thiazine dye compounds  
 AUTHOR(S): Mirzoyan, F. B.; Tarayan, V. M.  
 CORPORATE SOURCE: Inst. Gen. Inorg. Chem., Yerevan, USSR  
 SOURCE: Zhurnal Analiticheskoi Khimii (1980), 35(7), 1293-300  
 CODEN: ZAKHA8; ISSN: 0044-4502  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

AB The reaction between molybdosilicic acid (I) and the thiazine dyes, methylene blue, methylene green, and Azur I, was studied. The optimum acidity range for formation of I is pH 1.5-4.1. This range does not depend on the nature of the basic dye, but widens with the initial molybdate concn. After formation of I, the acidity of the soln. was increased to suppress completely the formation of basic dye isopolymolybdates and to sep. quant. the dye-I compds. The pH range is wider in the presence of oxalates, which mask the molybdate and allow the sepn. of the dye-I compds. under acidity conditions optimum for I formation. A highly sensitivity photometric method was developed for the detn. of Si as a I-methylene blue compd. (molar absorptivity = 4.3 .times. 10<sup>5</sup>).

IT **29260-45-5DP**, compd. with molybdosilicic acid  
 RL: FORM (Formation, nonpreparative); PREP (Preparation)  
 (formation of, pH effect on)

L25 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1979:585999 HCAPLUS  
DOCUMENT NUMBER: 91:185999  
TITLE: Reaction of molybdo germanic acid with thiazine dyes  
AUTHOR(S): Mirzoyan, F. V.; Tarayan, V. M.; Airiyan, E. Kh.  
CORPORATE SOURCE: Inst. Obshch. Neorg. Khim., Yerevan, USSR  
SOURCE: Armyanskii Khimicheskii Zhurnal (1979), 32(2), 106-12  
CODEN: AYKZAN; ISSN: 0515-9628  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

AB Ge was detd. by spectrophotometry by measuring the absorbance of the 1:4 complexes of molybdo germanic acid with dimethylthionine (I) or methylene green (II) in Me<sub>2</sub>CO at 610 or 650 nm, resp. (molar absorptivities 2.45 .times. 10<sup>5</sup> and 2.30 .times. 10<sup>5</sup>, resp.). Beer's law was obeyed for 2 .times. 10<sup>-7</sup>-1.4 .times. 10<sup>-5</sup> and 2 .times. 10<sup>-7</sup>-2.4 .times. 10<sup>-5</sup>M solns. contg. I and II, resp. The error was .ltoreq.3% the sample soln. (2 mL) contg. 0.14-10.2 .mu.g Ge<sup>4+</sup> was treated with HNO<sub>3</sub> to adjust pH to 1.5-4.3 and it was reacted with 0.5 mL 0.024M Na<sub>2</sub>MoO<sub>4</sub> for 10-15 min. Then 0.5 mL 0.2M Na<sub>2</sub>C<sub>2</sub>O<sub>4</sub> and 0.5 mL 0.1% I or II were added and the vol. was adjusted to 10 mL. The ppt. was sepd. by centrifuging and it was dissolved in Me<sub>2</sub>CO.

IT **39093-22-6D**, molybdo germanic complex  
RL: PRP (Properties)  
(spectra of)

L25 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1978:163374 HCAPLUS  
DOCUMENT NUMBER: 88:163374  
TITLE: Spectrophotometric determination of boron in thorium sulfate.  
AUTHOR(S): Federgrun, L.; Abrao, A.  
CORPORATE SOURCE: Div. Eng. Quim., Inst. Energ. At., Sao Paulo, Brazil  
SOURCE: Report (1976), IEA-420, 6 pp. Avail.: INIS  
From: INIS Atomindex 1978, 9(3), Abstr. No. 354290  
DOCUMENT TYPE: Report  
LANGUAGE: Portuguese

AB The detn. of microquantities of B in nuclear grade Th sulfate is based on the extn. of the BF<sub>4</sub><sup>-</sup> ion assocd. with monomethylthionine (MMT) into 1,2-dichloroethane. The quant. sepn. of Th is mandatory to avoid the pptn. of ThF<sub>4</sub>. The Th sulfate is dissolved by using a strong cation exchanger, Th<sup>4+</sup> being totally retained on the resin. B is then detd. in the effluent. The procedure allows the detn. of 0.2-10.0 .mu.g B with a max. error of 10%. Th sulfate samples contg. 0.2-2.0 .mu.g B/g Th were analyzed.

IT **30719-07-4**  
RL: ANST (Analytical study)  
(in detn. of boron by extn. and spectrophotometry)

L25 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1973:9548 HCAPLUS  
DOCUMENT NUMBER: 78:9548  
TITLE: Theoretical study of the spectra and protonation site of thiazine dyes. II. Triplet state  
AUTHOR(S): Rayez, J. C.; Chalvet, O.  
CORPORATE SOURCE: Lab. Chim. Phys. A, Univ. Bordeaux, Talence, Fr.  
SOURCE: Journal de Chimie Physique et de Physico-Chimie Biologique (1972), 69(10), 1537-43  
CODEN: JCPBAN; ISSN: 0021-7689  
DOCUMENT TYPE: Journal  
LANGUAGE: French

AB A configuration interaction calcn. within the Pariser-Parr-Pople approxn. indicates that the lowest triplet and lowest singlet states of thionine have the same configuration rather than different configurations as suggested by U. Sommer and H. E. A. Kramer (1971). The 1st triplet state

of basic and acid thiazine dyes are involved in the same electronic transition (9 .fwdarw. 10) as are the 1st singlet states. The protonation site of these basic dyes is the intracyclic N atom in these states.

IT 29260-45-5 30719-07-4 39093-22-6

RL: PRP (Properties)

(protonation and spectrum of, configuration interaction in relation to)

L25 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1971:44920 HCAPLUS

DOCUMENT NUMBER: 74:44920

TITLE: Quantitative determination of boron in glasses used as encapsulants for electronic devices

AUTHOR(S): Goydish, B. L.

CORPORATE SOURCE: RCA Lab., Princeton, NJ, USA

SOURCE: Microchemical Journal (1970), 15(4), 572-8

CODEN: MICJAN; ISSN: 0026-265X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB N-Methylthionine (Azure C) reacts with BF<sub>4</sub><sup>-</sup> to form a colored complex in a 0.5N H<sub>2</sub>SO<sub>4</sub> medium. This colored complex is extractable with dichloroethane or a mixt. of dichloroethane-dichloropropane, with a max. absorbance at 660 m.mu.. Since it is necessary to dissolve the borosilicate glass with HF, the presence of fluoride creates a problem when attempting to utilize other spectrophotometric methods for B, e.g., hydroxy-anthraquinone and anthraquinonylamine reagents. In the proposed method, fluoride is necessary because Azure C reacts only with the BF<sub>4</sub><sup>-</sup> complex; this makes the method very selective for the detn. of B in the presence of fluoride without prior sepn. This method has been successfully applied to the detn. of B in glasses used as encapsulants.

IT 30719-07-4

RL: USES (Uses)

(in boron detn., in glass)

=>

=>

=> fil caold

FILE 'CAOLD' ENTERED AT 14:59:42 ON 23 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=>

=>

=> s 124

L26 0 L24

=>

=&gt;

=&gt; fil reg

FILE 'REGISTRY' ENTERED AT 14:59:54 ON 23 SEP 2003  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
 provided by InfoChem.

STRUCTURE FILE UPDATES: 22 SEP 2003 HIGHEST RN 591204-55-6  
 DICTIONARY FILE UPDATES: 22 SEP 2003 HIGHEST RN 591204-55-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

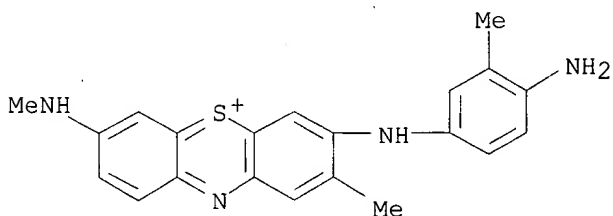
Experimental and calculated property data are now available. See HELP  
 PROPERTIES for more information. See STNote 27, Searching Properties  
 in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=&gt;

=&gt;

=&gt; d ide can l24 tot

L24 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 352005-63-1 REGISTRY  
 CN Phenothiazin-5-ium, 3-[(4-amino-3-methylphenyl)amino]-2-methyl-7-  
 (methylamino)- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C21 H21 N4 S  
 SR CA  
 LC STN Files: CA, CAPLUS

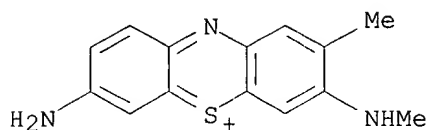


1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:134287

L24 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 352005-61-9 REGISTRY  
 CN Phenothiazin-5-ium, 7-amino-2-methyl-3-(methylamino)- (9CI) (CA INDEX  
 NAME)  
 FS 3D CONCORD  
 MF C14 H14 N3 S

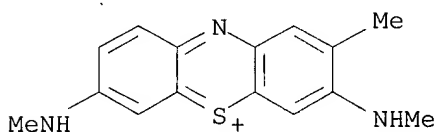
SR CA  
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:134287

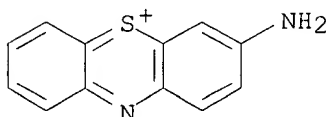
L24 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 352005-60-8 REGISTRY  
CN Phenothiazin-5-ium, 2-methyl-3,7-bis(methylamino)- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C15 H16 N3 S  
SR CA  
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:134287

L24 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 352005-59-5 REGISTRY  
CN Phenothiazin-5-ium, 3-amino- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C12 H9 N2 S  
SR CA  
LC STN Files: CA, CAPLUS

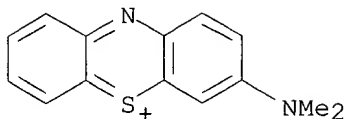


1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

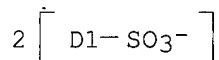
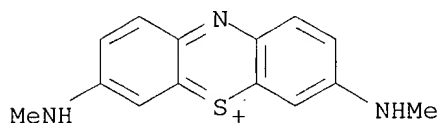
REFERENCE 1: 135:134287

L24 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 153813-86-6 REGISTRY  
CN Phenothiazin-5-ium, 3-(dimethylamino)- (9CI) (CA INDEX NAME)  
FS 3D CONCORD

MF C14 H13 N2 S  
 CI COM  
 SR CA



L24 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 80297-51-4 REGISTRY  
 CN Phenothiazin-5-ium, 3,7-bis(methylamino)disulfo-, inner salt, ion(1-)  
 (9CI) (CA INDEX NAME)  
 MF C14 H12 N3 O6 S3  
 CI IDS  
 LC STN Files: CA, CAPLUS



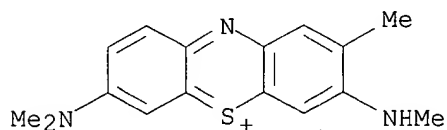
3 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 101:75916

REFERENCE 2: 101:75915

REFERENCE 3: 96:8116

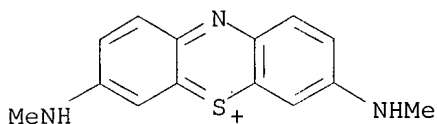
L24 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 47078-64-8 REGISTRY  
 CN Phenothiazin-5-ium, 7-(dimethylamino)-2-methyl-3-(methylamino)- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C16 H18 N3 S  
 CI COM  
 LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:134287

L24 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 39093-22-6 REGISTRY  
 CN Phenothiazin-5-ium, 3,7-bis(methylamino)- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C14 H14 N3 S  
 CI COM  
 LC STN Files: BEILSTEIN\*, CA, CAPLUS  
 (\*File contains numerically searchable property data)



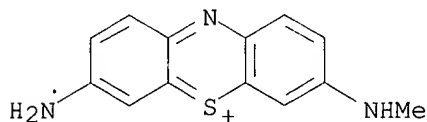
3 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:334255

REFERENCE 2: 91:185999

REFERENCE 3: 78:9548

L24 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 30719-07-4 REGISTRY  
 CN Phenothiazin-5-ium, 3-amino-7-(methylamino)- (8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Monomethylthionine  
 CN N-Methylthionine  
 FS 3D CONCORD  
 MF C13 H12 N3 S  
 CI COM  
 LC STN Files: BEILSTEIN\*, CA, CAPLUS, CSCHEM, USPATFULL  
 (\*File contains numerically searchable property data)



8 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:334255

REFERENCE 2: 125:341110

REFERENCE 3: 124:328070

REFERENCE 4: 120:229898

REFERENCE 5: 111:86027



REFERENCE 6: 88:163374

REFERENCE 7: 78:9548

REFERENCE 8: 74:44920

L24 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2003 ACS on STN

RN 29260-45-5 REGISTRY

CN Phenothiazin-5-ium, 3-(dimethylamino)-7-(methyamino)- (9CI) (CA INDEX NAME)

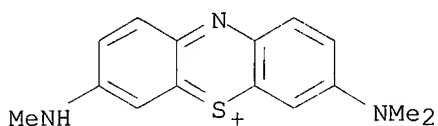
FS 3D CONCORD

DR 56109-47-8, 155614-09-8

MF C15 H16 N3 S

CI COM

LC STN Files: BEILSTEIN\*, CA, CAPLUS, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)



12 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

12 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:226765

REFERENCE 2: 131:334255

REFERENCE 3: 125:341110

REFERENCE 4: 125:329347

REFERENCE 5: 124:328070

REFERENCE 6: 120:229898

REFERENCE 7: 112:15675

REFERENCE 8: 109:151298

REFERENCE 9: 108:23242

REFERENCE 10: 96:173548